USTRANSCOM

DPfM Update

Single Load Planning Capability (SLPC)

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SLPC Background

- **Genesis of SLPC effort:**
  - USJFCOM representatives briefed Mar 07 DSG on need for single load planning capability for the JDDE
  - DSG concurred and requested USTRANSCOM/USJFCOM co-lead a CBAT and recommend solution
- **Objective of SLPC effort:**
  - Ability to create a load plan for air, ocean, rail, and truck in a single system that affords the capability of one time entry of the data
  - Ability to maintain the data in a repository and associate different conveyances to the equipment through out the end-to-end process of deployment, distribution, and sustainment

SLPC Functional Analysis

The functional team analyzed two alternatives:

- Maintaining Status Quo (SQ). Maintaining SQ prevents integrating systems and capabilities to support warfighter requirements with accurate, reliable and timely load planning capabilities for deployment and distribution operations.

Or

- A single capability to provide load planning and capacity estimation for air, container, rail, truck and water. The desired end state, a single load planning capability, will provide planners with an enterprise view using an integrated data source for developing primary load plans, secondary loads, and sharing load plan information to support logistics decision-making at multiple echelons of command

Recommended a single capability to provide load and stow planning for the enterprise

SLPC Functional Analysis

The table below identifies the extent to which the analyzed systems satisfied the functional requirements validated at the first CBAT meeting. Consideration was given to requirements under development.

Conveyance	Fielded as of June 2007						Development		Total
	A Fully	B Partially	C None	D Total Number of Requirements	E Percent Fielded		F Number of Requirements Under Development	G Percent Under Development	H Percent Under Development/Fielded
AALPS Total	43	4	0	146	32%		0	0%	32%
ICODES Total	61	4	81	146	45%		59	40%	85%

The results of the functional analysis were provided to the technical team for development and analysis of alternatives

Technical Alternatives

Four alternatives were developed for analysis:

- Alternative A: Status Quo – Considered only to provide a financial baseline.
- Alternative B: Migrate load planning functionality into AALPS
- Alternative C: Migrate load planning functionality into ICODES
- Alternative D: ICODES and AALPS functionality provided separately as web services

SLPC Technical Analysis

Technical assessments are summarized below (lower score is better):

Alternative	Level of Effort	Schedule	Risk	Overall Score
B-Migration of load planning functionality into AALPS	**24**	**25**	**15**	**64**
C-Migration of load planning functionality into ICODES	**15**	**15**	**11**	**41**
D-AALPS & ICODES functionality as web services	**16**	**20**	**16**	**52**

The results of the technical analysis were provided to the financial team for costing

SLPC Financial Analysis

The financial team collected cost data from the PMOs of the systems of interest. The PMOs were requested to provide their current budget data for FY08-13. Note: AALPS funding derived by CBAT due to nature of funding.

	FY08	FY09	FY10	FY11	FY12	FY13	Total
Alt A - Status Quo	$4,884	$4,884	$4,884	$5,796	$5,051	$5,368	$30,865
Alt B – Migration of load planning functionality into AALPS	$6,767	$6,767	$5,498	$6,410	$5,665	$5,982	$37,088
Alt C – Migration of load planning functionality into ICODES							
Alt D - AALPS and ICODES functionality as web services	$7,070	$5,555	$5,555	$6,265	$5,520	$5,837	$35,397

ingle capability (alt C) achieved at essentially same total cost o
maintaining two separate loading planning systems (status quo)

$ Thousands

	ROI	Inv $	BCR	TTL Costs
Alt A - Status Quo	N/A	N/A	N/A	$30,865
Alt B – Migration of load planning functionality into AALPS	(0.65)	$3,767	0.76	$37,088
Alt C – Migration of load planning functionality into ICODES	1.02	$1,509	1.00	$30,836
Alt D - AALPS and ICODES functionality as web services	(1.07)	$2,187	0.87	$35,397

Single capability (alt C) can be achieved with break even

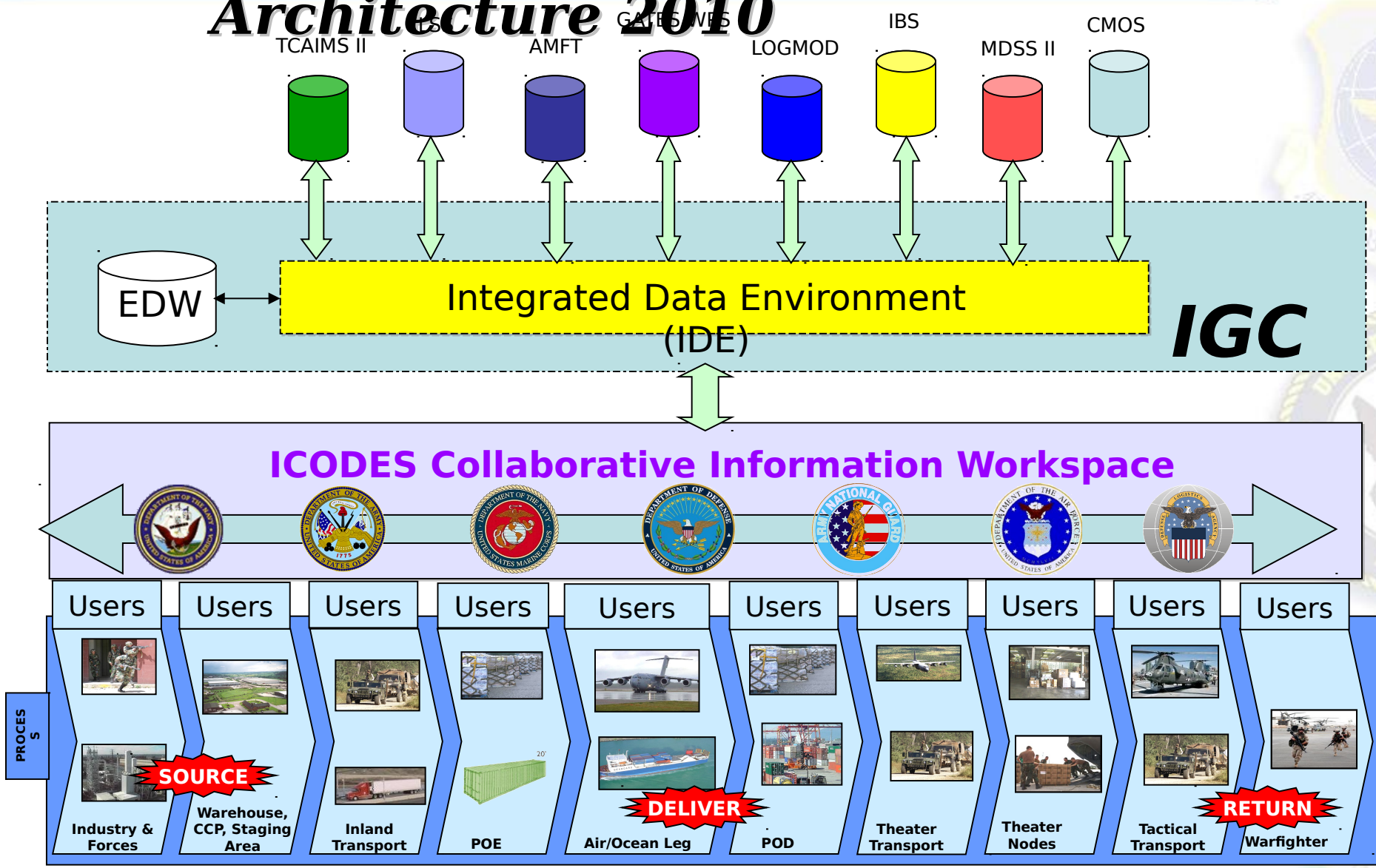
SLPC Recommendation

Recommendation

Based on the analysis, the SLPC CBAT recommends implementing *Alternative C- Migration of load planning functionality into ICODES*. This alternative will provide:

- Single, cross-service planning for stowage and loading
- One graphical user interface (GUI); drag and drop capability
- The ability to complete multiple load/stow plans concurrently
- Ability to operate in a stand-alone capacity
- Air, container, rail, truck, and water conveyance load planning capability
- Intelligent agents that allow users more flexibility and provides intuitive user experience
- User-friendly alert capabilities, such as: hazardous material, weight & height limits, trim & stability, stow loading points, auto stow assist
- Modular construct that allows multiple modules and session/windows to be used concurrently
- Modular training based on user needs

Single Load Planning Capability Target Architecture 2010



Way Ahead

The SLPC CBAT recommends:

- The joint community, in conjunction with their national partners, brief and seek concurrence from the DTTF, IRB, and the DBSMC, as necessary
- Conduct F2F meeting in October to develop details of implementation plan and funding
- DPO/JDPO serve as Trail Boss to monitor execution of milestones outlined in an approved implementation plan
  - Provide the DSG and other governing bodies updates on the status of SLPC implementation, as applicable
- Ensure development of performance metrics

SLPC

Questions ?

Back Ups

SLPC Desired End State

- **Full SLPC implementation:**
  - A load plan will be created earlier in the process to eliminate guesswork
  - At time of execution (Movement) the Load Plan will be solidified at the port of departure
  - The data will be resident to revisit at each step along the way where a new load plan is needed
  - The integrity of the load data will not be lost, just associated to a new conveyance
  - The ability to estimate container and conveyance requirements based on a load list

Business Case Methodology

The CBAT gathered process, system and financial data from:

- Corporate Resource Information Source (CRIS) and
- Onsite visits
  - SLPC CBAT held Jun 07
  - AALPS PMO Jun 07
  - ICODES PMO Jul 07
  - Government Acceptance Testing of ICODES Aug 07

Functional requirements were derived from the:

- Combatant Command (COCOM) 129
- Subject matter experts
- Program specific requirements
- Theater Distribution Management (TDM) business case
- USJFCOM JDPO use case document.

Business Case Methodology, (Continued)

The CBAT developed functional, technical and financial evaluation criteria and question sets that addressed the areas identified below:

- *Functional*: to what extent the systems satisfied the requirements
- *Technical*: technical maturity of systems for supporting a single load planning capability
- *Financial*: comparing total costs and calculating the return on investment (ROI) and benefit/cost ratio (BCR)

SLPC Functional Analysis

- Developed Single Load Planning Capability requirements
- Researched DOD load planning systems to determine their capability
- Narrowed focus to two systems - AALPS and ICODES
- Analyzed each system’s ability to meet requirements for all conveyances
- Analyzed future capabilities currently in development for each system

Proposed Milestones

Spiral 0 Milestones – Nov 07-Feb 08

- Rail–Loader Plug-In from Prototype to IOC
- Air-Loader Plug-In from Concept to Prototype
- Update documentation as required
- Develop, document and sign all interface agreements required
- Develop and sign concept of operations (CONOPS)
- Develop new training program for Rail and Air loaders

Proposed Milestones (Continued)

Spiral 1 Milestones – Feb 08-Jun 08

- Rail–Loader Plug-In from IOC to FOC
- Air-Loader Plug-In from Prototype to IOC
- Update documentation as required
- Develop Conveyance Estimator Plug-In to IOC

Spiral 2 Milestones – Jul 08-Dec 08

- Air-Loader Plug-In from IOC to FOC
- Update documentation as required
- Conveyance Estimator Plug-In from IOC to FOC
- Update Training Program for new Plug-Ins

Proposed Milestones (Continued)

Future – FY09-FY10

- Develop Mediating Layer Web Services
- Develop Collaborative Information Workspace (CIW) (fully leverage IGC)